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**From:** Sutton, Douglas [dsutton@hgl.com]  
**Sent:** 2/12/2014 8:08:48 PM  
**To:** Rossi, Debra [Rossi.Debra@epa.gov]  
**CC:** Susanna Mays [susanna@TrustSC.com]; Michael Sherrier (michael.p.sherrier@dupont.com) [michael.p.sherrier@dupont.com]; John Cargill [John.Cargill@state.de.us]  
**Subject:** RE: DS&G 2/3/14 call summary

Debbie,

Thank you for the prompt feedback on the call summary. You will be receiving the FS schedule by the end of today. Golder and I took a hard look at the schedule but are still coming up with a September 2015 completion date. The schedule duration is, in large part, the result of having four treatment zones and so many technologies to consider. In the memo that accompanies the schedule we provide some input on how the duration might be reduced by three months. I'd be happy to work through that with you and Golder to see what would work.

Good luck with the snow tomorrow.

Thank you again,  
Doug

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**From:** Rossi, Debra [mailto:Rossi.Debra@epa.gov]  
**Sent:** Wednesday, February 12, 2014 2:32 PM  
**To:** Sutton, Douglas  
**Cc:** Snoparsky, Mindi; Susanna Mays; Michael Sherrier (michael.p.sherrier@dupont.com); John Cargill; Aaron Frantz  
**Subject:** DS&G 2/3/14 call summary

Doug,

Thank you for the summary. I added comments/responses in blue font to your summary, below. I look forward to receiving the proposed FS schedule by the end of this week.

Debbie

**From:** Sutton, Douglas [mailto:dsutton@hgl.com]  
**Sent:** Tuesday, February 11, 2014 11:05 AM  
**To:** Rossi, Debra  
**Cc:** Susanna A. Mays; Miller, Theresa  
**Subject:** call summary

Debbie,

Thank you for the time you and your team spent with us yesterday on the phone to discuss the DS&G site. It was a long call and we greatly appreciate you sticking with us. Here is a brief summary of the call to document the conversation. Please review and confirm the accuracy of this summary.

Attendees:

- Doug Sutton – HGL
- Theresa Miller – Golder
- Ross Bennett – Golder
- Susanna Mays – DS&G Trust
- Debra Rossi – EPA
- Pat Flores – EPA
- Linda Watson – EPA
- **Ex. 4 CBI** - CDMSmith

Comments on Pre-Screen Document:

1. CDMSmith provided three suggestions.
  - a. Include biosparging either as a stand-alone technology or by specifically mentioning in concert with one of the other bio technologies already mentioned.
  - b. There was not enough information provided to eliminate biopiles for further consideration. Retain the technology or revisit the text to support elimination of the technology.
  - c. Sheet piles may be a valuable complementary technology to consider (with funnel and gate) and should be included in the pre-screen analysis.
2. EPA requested that specific information about the applicability of chemical oxidation of BCEE be provided. And further stated that if this information is not available to support the use of this technology for BCEE, then a treatability study should be conducted.
3. EPA noted that the chemical oxidation discussion specifically referenced ozone and peroxide and wanted to make sure that these were just examples and not the only oxidants considered. It was confirmed that these are just examples.

4. EPA is ok with the conceptual treatment zones as presented in the pre-screen analysis.

5. EPA will provide additional, minor comments within a week. The Trust subsequently received these comments and is revising the pre-screen analysis document.

#### SSC Report Comments:

1. Landfill gas and VOCs (Comment 11) – EPA (Pat Flores) was not suggesting that there is specific data indicating the presence of VOCs in the Inert Area or Grantham South. The comment was a general reference to methane as “carrier gas” that could carry VOCs with the methane if they are present.

EPA (Linda Watson) commented that they conducted a risk assessment for the Cirillo Brothers vapor sampling from June 2013. The screening [performed by Environmental Alliance on behalf of the DS&G Trust] for non-cancer risk should be done using 0.1 instead of 1. When this happens, more contaminants are retained. EDB (1,2-dibromoethane) had a cancer risk of  $1.4 \times 10^{-4}$ , and two contaminants (1,2,3-trichloropropane and 1,2,4-trimethylbenzene) had non-cancer risks above 1. EPA is not sure if the VOC detections are related to the Cirillo Brothers business (basement use) or the co-located business (garage adjoined to the Cirillo’s basement by a door, operated by others). Tier III monitoring for methane in Cirillo’s basement will continue when triggered by Tier II monitoring. EPA will look at the results of the next quarterly report and make some recommendations. EPA does not have any specific remedial approach in mind.

2. Mass Estimates (Comment 50) - There was broad discussion about the contaminant mass estimates, and the use of these estimates. Given the general uncertainty with the estimates, Doug suggested that the mass estimates be removed from the SSC report. EPA agreed, but asked that groundwater mass estimates be brought back in future analysis if it would assist in estimating remedial time frames. CDMSmith said that at a later stage of the FS process, it may be helpful to refer to mass estimates when looking at particular portions of treatment zones, so that mass removed (e.g., by excavation) can be used as a metric.

3. UPCUTZ groundwater (EPA Comments 5, 45 and 46) – Golder stated that the contaminated groundwater should not be viewed as a source to groundwater. EPA indicated that they view the UPCUTZ groundwater as a “reservoir” of contaminant mass that can migrate into the UPA groundwater. Doug asked for clarification about the ARARs for the UPCUTZ. Would the UPCUTZ be subject to the same ARARs as the UPA or different ARARs? EPA said that the portions of the UPCUTZ under the waste management unit that is the source of contamination would not be subject to drinking water ARARs. The ARARs that would apply under other waste management units (e.g., Inert Area and Grantham South) would be open to interpretation. EPA said that she would check with Mindi Snoparski (EPA) and John Cargill (DNREC) about the ARARs. The NCP preamble sets forth the Agency's policy that for groundwater, "remediation levels generally should be attained throughout the contaminated plume, or at and beyond the edge of the waste management area when waste is left in place." I recall saying that EPA can probably use its discretion in determining whether or not the waste management area at DS&G includes the Inert Area and the Grantham South Area. ARARs and risk- and

health-based cleanup criteria for groundwater will apply to the UPCUTZ within the area of attainment, i.e., beyond the boundary of the waste management area. I'm sure the Trust recognizes that active groundwater remediation efforts are not to be limited to the area of attainment. EPA believes that active remediation within and beneath the waste management area(s) will be necessary in order to attain cleanup levels throughout the area of attainment within a reasonable time frame. We will be available to discuss this further as the FS progresses.

Additional discussion is needed to evaluate where UPCUTZ fits into RAOs.

4. Addressing Waste Materials (Comment 46) - With regard to eliminating the paragraph about the Trust meeting the obligations of the NCP, EPA suggested that the paragraph be retained but with modification, such as "The Trust is addressing principal threat waste [PTW] by ...." The Trust has employed treatment to address PTW at the DDA primarily through operation of the bioventing system. Operation of the LFE<sub>x</sub>S is a hydraulic containment measure. Whether or not PTW currently exists at the DDA does not appear to have been adequately considered. Appendix C of the 2002 Focused Feasibility Study for the Maryland Sand, Gravel and Stone site (<http://loggerhead.epa.gov/arweb/public/pdf/434849.pdf>) provides a methodology for identifying "Ground Water Principal Threat" material which could be applied at the DS&G site.

Doug asked for a history of how PTW became part of the site discussion. EPA indicated that it was commonly used in Region 3, particularly when EPA needed leverage to encourage a PRP to aim for treatment instead of hydraulic control.

CDMSmith mentioned that the UPCUTZ has residual contamination that is migrating into the UPA and needs to be addressed. CDMSmith does not necessarily consider the UPCUTZ a source.

Doug mentioned that he was concerned about the PTW designation for the UPCUTZ and its implications for encouraging treatment because he feels it will be impossible to treat the UPCUTZ to ARARs in a reasonable time frame and does not want the Trust to sign up for something he doesn't believe can be achieved. EPA and CDMSmith replied that a contingent ROD may be applicable. An alternative for treatment would be selected in the ROD and pilot tested after the ROD. EPA indicated that if the pilot test were unsuccessful, then a TI waiver would apply and the contingent remedy of hydraulic control would be implemented. EPA also indicated that the hydraulic control could be put in place first (as a contingency) and the treatment technology would be piloted after hydraulic control is implemented. Based on available information, EPA would not characterize the UPCUTZ as PTW. Characterization of the contaminated UPCUTZ as a low permeability reservoir of contaminant mass would be acceptable to EPA. The term "dissolved-phase mass area of significance" is vague and open to interpretation and is not acceptable. As we discussed last week, a contingency remedy (in situ treatment with hydraulic control as a contingent remedy) or hydraulic control augmented by an in-situ treatment pilot study (which could be scaled up, if effective) should be considered. Reflecting on our conversation last week, I would like to clarify that neither of these options would by necessity involve a TI waiver.

5. Updated PRGs (Comment 49) - EPA (Linda Watson) will take a look at Table 8 and get back to EPA (Debbie Rossi) about the COPC list by the end of the week. Golder requested the backup from EPA for June 2011 PRG development. EPA provided the information after the call. Trust will prepare updated site-specific PRGs and provide to EPA.

6. Updated FS schedule (Comment 48) - EPA asked about the revised FS schedule. Doug and Golder agreed to provide a revised schedule by the middle of the week of 2/10/14 but said that the final FS due date would still be in the September 2015 time frame. EPA said that this schedule puts them in a corner given the schedule for a 2016 ROD (potentially in the second quarter). EPA said that finishing the FS three months earlier would make a difference. EPA was disappointed that the pre-screen analysis did not accelerate the schedule. Doug and Golder said that the pre-screen analysis did not accelerate the schedule because so many technologies were retained. Doug and Golder said that they would work with the schedule and highlight those parts of the schedule that are critical path items or that control the long time frame.

EPA agreed to the approach for the revised SSC report. All parties agreed that if EPA provided input on the ARARs and the PRGs within a week that the Trust would provide the revised SSC report by the end of the first week in March 2014.

Doug indicated that the Trust will be incorporating bisphenol A analysis but will not be analyzing for PFCs as part of the semi-annual monitoring events. EPA requested that the Trust's PFC analysis response be included in writing as a response to the SSC report comments (Comment 38).

Thank you again for your time,

Doug

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